

Amendments to the Specification:

On page 5, please amend the paragraph beginning at line 24 as follows:

-The Figure 4 provides a schematic representation of an apparatus 100 suitable for the formation of capsules and particles for incorporation into food products by generation of compound jets via EHD. A structured Taylor cone 20 forms at the ends 18 the electrified needles 14 and 16 when inner liquid 10 and outer liquid 12, respectively, are injected at appropriate flow rates through their respective needle tips 18. At least one needle (in this case needle 16) is connected at a potential difference 28 with respect to a reference electrode 24 which has a hole 26 there through. In one preferred embodiment, the potential difference 28 between the needles 14 and 16 and the reference electrode 24 is a few kV. Two concentric jets 21, one of them surrounding the other, issue from the tip (i.e., cone vertex) of Taylor cone 20. The concentric jets 21 break up eventually by varicose instabilities giving rise to an aerosol of compound drops 22 with the inner liquid 10 (dark grey) surrounded by the outer one 12 (lighter gray). Chamber 30 contains a dielectric atmosphere (i.e., gas, liquid, or vacuum) in which the compound drops 22 are formed. Compound drops 22 can be removed from chamber 30 via hole 26.

On page 8, please amend the paragraph beginning at line 27 as follows:

-In the particular case having only two feed tips (i.e., $N=2$; see the Figure 4), the present invention provides an apparatus comprising:

On page 9, please amend the paragraph beginning at line 19 as follows:

-The basic device used in both configurations of the above described apparatus comprises: (1) a ~~mean~~ means to feed a first liquid 1 through a metallic tube T_1 , whose inner diameter ranges approximately between 1 and 0.4 mm, respectively; (2) a ~~mean~~ means to feed a second liquid 2, immiscible with liquid 1, through a metallic tube T_2 , whose outer diameter is smaller than the inner diameter of T_1 . In this case, T_1 and T_2 are concentric (the end of the tubes does not need to be located at the same axial position); (3) a reference electrode (e.g., a metallic annulus for instance) placed in front of the needle exits at a distance between about 0.01 and about 50 mm; the axis of the hole of the annulus is aligned with the axis of T_1 ; and (4) a high voltage power supply, with one pole connected to T_1 and the other pole connected to the reference electrode. T_1 and T_2 might not be connected to the same electric potential. All the elements are immersed in a dielectric atmosphere that might be a gas, a liquid immiscible with liquid

1, or vacuum. Generally the dielectric atmosphere will be contained within a chamber as shown in the Figure 4. Of course, if the dielectric atmosphere is air, the chamber is simply the air surround the Taylor cone and concentric jets. A part of the generated aerosol, or even the structured jet, may be extracted through the orifice in (3) to characterize it or to process it.

On page 12, please amend the paragraph beginning at line 18 as follows:

-General Device Illustrated in the Figure 4. A device 100 used to produce stable charged coaxial jets of non-miscible liquids with diameters in the micro/nanometric range and the subsequent aerosol of structured micro/nano particles or capsules for addition to food is shown and described herein (see the Figure 4). Of course, other embodiments of this device can be used so long as they produce the desired aerosol of structured micro/nano particles or capsules for addition to food. Although various embodiments are part of the invention, they are merely provided as exemplary devices which can be used to convey the essence of the invention, which is the formation of stable coaxial micro jets of micro and nanometric diameters via EHD and/or uniform dispersion of charged structured micro/nano particles.

On page 12, please amend the paragraph beginning at line 25 as follows:

-The basic device for using in the invention according to the Figure 4 comprises: (1) a means for supplying a first liquid 12 through a metallic tube 16, preferably with an OD of about 400 mm and ID of about 200 mm; (2) a means for supplying a second liquid 10, non-miscible with the first liquid 12, through a metallic tube 14, with an OD that is smaller than the ID of tube 16; (3) a counter electrode (ground) 24, or extractor, like a metallic plate, placed a short distance (e.g., preferably about 1mm) in front of the needle tips 18, having a hole 26 therein; the center of the hole 26 is approximately located along, and aligned ~~alined~~, with, the long axis of the needle tips; and (4) a high voltage power supply, with one of the poles connected to needle 16 and the other one connected to the counter electrode 24. Both needles or tubes 14 and 16 may or may not be at the same electrical potential. In the configuration shown in the Figure 4, needle 14 is placed concentrically inside of needle 16. The exit of the needle or tubes 14 and 16 may or may not be located at the same axial position. All the components are immersed in a dielectric atmosphere that may be a gas, liquid, or vacuum. A Taylor cone 20 forms at needle tips 18 and a micro structured jet 21 forms from the portion of the Taylor cone 20 removed from the needle tips 18. Part of the aerosol 22 formed, or even the micro structured jet 21, may be withdrawn through the hole 26 for further

processing or characterization of the products. Of course, as those skilled in the art will realize, specific dimension given here, as well as through out the specification, can be varied so long as the desired capsules and particles for incorporation into food products can be obtained as described herein.

On page 13, please amend the paragraph beginning at line 22 as follows:

-More specifically, the Figure 4 provides a schematic representation of an apparatus 100 suitable for the formation of capsules and particles for incorporation into food products by generation of compound jets via EHD. A structured Taylor cone 20 forms at the ends 18 of the electrified needles 14 and 16 when inner liquid 10 and outer liquid 12, respectively, are injected at appropriate flow rates through their respective needle tips 18. At least one needle (in this case needle 16) is connected at a potential difference 28 with respect to a reference electrode 24 which has a hole 26 there through. In one preferred embodiment, the potential difference 28 between the needles 14 and 16 and the reference electrode 24 is a few kV. Two concentric jets 21, one of them surrounding the other, issue from the tip (i.e., cone vertex) of Taylor cone 20. The concentric jets 21 break up eventually by varicose instabilities giving rise to an aerosol of compound drops 22 with the inner liquid 10 (dark grey) surrounded by the outer one 12 (lighter grey). Chamber 30 contains a dielectric atmosphere (i.e., gas, liquid, or vacuum) in which the compound drops 22 are formed. Compound drops 22 can be removed from chamber 30 via hole 26.

On page 16, please amend the paragraph beginning at line 24 as follows:

-The embodiment of the Figure 4 is clearly designed to produce capsules of one substance coated by another substance. Therefore, the outer feeding needle is positioned concentrically with the inner one in the device in the Figure 4. Furthermore, two or more additional feeding needles with each one concentrically positioned around the preceding one may surround the inner needle. If several liquids are injected through the needles at appropriate flow rates and values of the needle voltage, the break up of the resulting coaxial multi-jets gives rise to an aerosol of droplets composed of several approximately concentric layers. The diameters of the spheres (inner and outer) can be precisely adjusted by varying the outer-inner flow rate ratio.